

REMARKS

Claims 1-10, 12-16, 26 and 27 are pending in the application.

Claims 1-10, 12-16, 26 and 27 are rejected.

Claims 1-4, 6-10, 12-16, 26 and 27 are rejected under 3 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a).

No new matter is added.

Claims 1-10, 12-16, 26 and 27 remain in the case for consideration.

Applicant requests reconsideration and allowance of the claims in light of the above amendments and following remarks.

Summary of Examiner Interview

On June 23, 2005, the applicant conducted an Examiner Interview by phone with Examiner Vu. In that interview, the applicant brought to the Examiner's attention some problems with the Examiner's interpretation of the Applicant's Admitted Prior Art (AAPA). In the Office Action dated April 5, 2005, the Examiner cited the AAPA as disclosing "an added bond finger (the 6th bond finger [2] from the right side of figure 3) connected to a redundant solder ball pad (22)." The applicant explained that first, the 6th bond finger from the right side of figure 3 is not an added bond finger. Second, even if that bond finger could be construed to be an added bond finger (with which the applicant disagrees), that bond finger does not connect to the redundant solder ball pad 22. The applicant explained that the redundant solder ball pad 22 resides on the bottom side of the BGA package along with the rest of the solder ball pads 8. The applicant clarified that figure 3 actually shows the 6th bond finger from the right side connecting to bond pad 15 that resides on the top surface of the chip. The bond pad 15 in question and redundant solder ball pad 22 are not connected partly because they reside on opposite surfaces of the BGA package.

The Examiner agreed with the applicant's explanation and asked the applicant to include this explanation in the applicant's written response to the Office Action. The applicant does so below.

Claim Rejections – 35 U.S.C. § 103

Claims 1-4, 6-10, 12-16, 26 and 27 are rejected under 3 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of U.S. Patent No. 6,707,149 to Smith ("Smith").

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Smith, and further in view of U.S. Patent No. 6,064,111 to Sota, et al. ("Sota").

The rejections are respectfully traversed.

With respect to independent claim 1, the Examiner cites FIG. 3 of the present application as disclosing an added bond finger ("the 6th bond finger from the right side of figure 3") connected to a redundant solder ball 22. First, the 6th bond finger from the right side of FIG. 3 is not an added bond finger. This bond finger is an existing bond finger that connects with bond pad 15 on top of the chip 6 using gold wire 4 and connects with a solder ball pad 8 on the bottom of substrate 10 via printed circuit pattern 14.

Second, FIG. 3 shows nothing connected to redundant solder ball pad 22. Solder pad 15 on top of the chip 6 may have been mistakenly thought of as connecting to redundant solder pad 22. However, this is not the case. As stated above, the redundant solder ball 22 resides on the bottom of the substrate along with the rest of the solder ball pads 8, as is normal for Ball Grid Array (BGA) packages. Contrastingly, the bond pad 15 resides on top of the chip 6 "to connect integrated internal circuits to an external area of the semiconductor chip 6 by wire bonding" (see page 2, lines 25-26 of the present application). Simply stated, the 6th bond pad from the right side of FIG. 3 does not connect to the redundant solder ball pad 22.

Thus, the combination of the AAPA and Smith fails to present a *prima facie* case of obviousness for claim 1 because the combination fails to disclose each and every element of claim 1. Therefore, independent claim 1 is believed to be allowable and allowance is respectfully requested.

Claims 2-4, 6-10 and 12 all depend from independent claim 1, and for at least the reasons given for claim 1, these claims are also believed to be allowable and allowance is respectfully requested.

With respect to independent claims 13 and 26, similar to claim 1, both claims recite an added bond finger connected to a redundant solder ball pad. FIG. 3 is also cited against these two claims as disclosing an added bond finger connected to a redundant solder ball pad. As explained above, FIG. 3 does not disclose an added bond finger connected to a redundant solder ball pad.

Thus, the combination of the AAPA and Smith fails to present a *prima facie* case of obviousness for either claim 13 or 26 because the combination fails to disclose each and every element of each of these two independent claims. Therefore, independent claims 13 and 26 are believed to be allowable and allowance is respectfully requested.

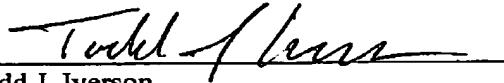
Claims 14-16 depend from claim 13 and claim 27 depends from claim 26. For at least the same reasons given for claims 13 and 26, these claims are also believed to be allowable and allowance is respectfully requested.

With respect to claim 5, this claim depends from independent claim 1. The addition of Sota fails to cure the deficiencies of the combination of the AAPA and Smith with respect to claim 1. Thus, the combination of the AAPA, Smith and Sota also does not present a *prima facie* case of obviousness for claim 1 because the combination fails to disclose each and every element of independent claim 1. Claim 1 is, thus, believed to be allowable over this combination. Because claim 5 depends from claim 1, claim 5 necessarily includes all of the elements of claim 1. Therefore, claim 5 is also believed to be allowable over the combination of the AAPA, Smith and Sota and allowance is respectfully requested.

For the foregoing reasons, reconsideration and allowance of claims 1-10, 12-16, 26 and 27 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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